

AMENDMENT TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-34 (Cancelled)

Claim 35. (New) A process for the recovery of lactic acid from an aqueous solution containing lactic acid and a lactate salt, said process comprising:

(a) contacting said aqueous solution with a water-immiscible basic amine extractant to form an amine extract containing lactic acid and an aqueous raffinate solution containing a lactate salt;

(b) separating said amine extract from said aqueous raffinate;

(c) stripping lactic acid from said amine extract to form a solution of lactic acid and a stripped extractant;

(d) extracting said aqueous raffinate solution separated in step (b) with said stripped extractant formed in step (c) to form a lactic acid-containing stripped extractant; and

(e) using said lactic acid-containing stripped extractant formed in step (d) as said basic amine extractant in step (a).

Claim 36. (New) The process of claim 35, wherein said aqueous solution has a pH of less than 5.

Claim 37. (New) The process of claim 35, wherein most of said lactic acid in said aqueous solution is extracted by said basic amine extractant in step (a).

Claim 38. (New) The process of claim 37, wherein at least 70% of said lactic acid in said aqueous solution is extracted by said basic amine extractant in step (a).

Claim 39. (New) The process of claim 35, wherein said aqueous solution comprises a fermentation broth.

Claim 40. (New) The process of claim 35, wherein said lactic acid-containing stripped extractant of step (e) comprises at least 3% lactic acid.

Claim 41. (New) The process of claim 40, wherein said lactic acid-containing stripped extractant of step (e) comprises at least 5% lactic acid.

Claim 42. (New) The process of claim 35, wherein said aqueous solution comprises said lactic acid and said lactate salt at a total concentration of at least 5%.

Claim 43. (New) The process of claim 35, wherein the ratio between said lactic acid and said lactate salt in said aqueous solution is between 1:9 and 5:1.

Claim 44. (New) The process of claim 43, wherein the ratio between said lactic acid and said lactate salt in said aqueous solution is between 1:9 and 3:1.

Claim 45. (New) The process of claim 35, wherein the ratio between said lactic acid and said lactate salt in said aqueous solution is up to 2:1.

Claim 46. (New) The process of claim 35, wherein said aqueous solution is concentrated by water evaporation prior to step (a).

Claim 47. (New) The process according to claim 35, wherein said lactate salt is selected from the group consisting of calcium lactate, sodium lactate, and ammonium lactate.

Claim 48. (New) The process according to claim 35, wherein said basic extractant in step (a) has a basicity corresponding to pKa lower than 7.

Claim 49. (New) The process according to claim 35, wherein said basic extractant of step (a) is recycled from step (d).

Claim 50. (New) The process according to claim 35, wherein said extraction of step (a) is effected under CO₂ pressure.

Claim 51 (New) The process of claim 35, wherein step (d) includes the use of an acid

stronger than lactic acid so as to displace lactic acid from the lactate salt.

Claim 52. (New) The process of claim 51, wherein said stronger acid is sulfuric acid, and a sulfate salt is formed as a by-product.

Claim 53. (New) The process of claim 35, wherein said stripped extractant obtained in step (c) is adjusted by adding or removing a polar solvent before the use of said stripped extractant in step (d).